

LEGEN'KOV, A.P.

PHASE I BOOK EXPLOITATION

sov/4085

- Leningrad. Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy institut
- Problemy Arktiki; sbornik statey, vyp. 5 (Problems of the Arctic; Collection of Articles, No. 5) Leningrad, Izd-vo "Morskoy transport," 1958. 139 p. 500 copies printed. XEROX COPY
- Additional Sponsoring Agency: USSR. Ministerstvo morskogo flota. Glavnoye upravleniye severnogo morskogo puti.
- Resp. Ed.: V.V. Frolov; Editorial Board: L.L. Balakshin, M.I. Belov, Ya. Ya. Gakkel', A.A. Girs, P. A. Gordiyenko, L.G. Kaplinskaya, A.F. Laktionov, A.P. Nikol'skiy, A.Ya. Sukhorukov, and A.F. Treshnikov (Deputy Resp. Ed.); Tech. Ed.: L.P. Drozhzhina.
- PURPOSE: The publication is intended for geographers, oceanographers, and readers interested in the study of the Arctic and Antarctic regions.
- COVERAGE: This collection of 19 articles published by the Arctic and Antarctic Institute deals with phenomena on the Arctic ice sheet, the effect of western

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roblems of the Arctic, Collection of Articles, No. 5 SOV/4085	
atmospheric circulation on air conditions in the Arctic methods of phoprocessing of aerial photographs in determining the depth of reservoirs, netic observations and processes occurring on islands in Soviet Arctic was Brief information on the results of Soviet Arctic and Antarctic expeditional included. References follow the articles.	raters.
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CIA-RDP86-00513R000929120(APPROVED FOR RELEASE: Monday, July 31, 2000

AUTHOR:

Legen'kov, A.P.

SOV/49-58-8-5/17

TITLE:

Plane Free Oscillations of an Ideal Homogeneous Liquid in an Infinite Canal of Variable Cross-section (Ploskiye svobodnyye kolebaniya ideal'noy odnorodnoy zhidkosti v beskon-

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echnom kanale peremennogo secheniya)

PERIODICAL:

Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya,

1958, Nr 8, pp 989 - 994 (USSR)

ABSTRACT: This problem has been studied by Green (Ref 1), Lamb (Ref 2), Taylor (Ref 3) and Thorade (Ref 4). Green assumed that the cross-section change the cross-section changed only by a small fraction in a wavelength. In Lamb's and Taylor's formulations, the change of cross-section could take place over any distance but the section itself tended to zero. Thorade considered a similar problem but with an infinite canal. However, he neglected reflections of the oscillations which considerably reduces the value of his

work.

The author considers the oscillations of a liquid in an infinite canal not subject to the limitations of Green and

Thorade. The basic equations are taken to be:

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SOV/49-58-8-5/17 Plane Free Oscillations of an Ideal Homogeneous Liquid in an Infinite Canal of Variable Cross-section

$$\frac{\partial u}{\partial t} = -g \frac{\partial \eta}{\partial x} ,$$

$$\frac{1}{b} \frac{\partial}{\partial x} (Su) = -\frac{\partial \eta}{\partial t}$$
(1)

where u is the velocity of horizontal motion of the liquid; t is the time; g is the acceleration due to gravity; η is the deviation from the undisturbed surface; b is the width of the canal at the surface and S is the cross-sectional area of the canal. Assuming a sine wave oscillation gives Eq.(2).

The oscillations are supposed to be propagated in the direction in which the cross-section diminishes. Then the progressive waves can be written in the form:

Card2/7 $\eta^{\dagger} = \eta_0 \sin \sigma (t - x/c_0)$

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where $c_o = \sqrt{p_o g}$ is the velocity of propagation of the wave and p_o is the depth. Between two different sections, a wave with variable amplitude and velocity is propagated; as in Eq.(3) (where $\overline{\eta}$ and \overline{u} are the amplitude and maximum, horizontal velocity of the liquid at the given point, β and γ are non-linear functions denoting the change in phase between the given point and the origin. Eqs. (3) are written as sums of sines and cosines (4). Eq.(7) is obtained from the continuity condition. Three main problems are now considered.

a) The width changes along a straight line while the depth remains constant. Let $b = b_o - 2xtan\phi$ and the depth p_o be constant (Figure 1). Eliminating p_o and substituting p_o and p_o and p_o and substituting p_o and p_o and p_o and substituting p_o and p_o and p_o and p_o and p_o and substituting p_o and p_o and p_o and p_o and p_o and substituting p_o and p_o and p_o and p_o and p_o and p_o and p_o and substituting p_o and p_o are p_o and p_o and p_o and p_o and p_o are p_o and p_o and p_o and p_o and p_o are p_o and p_o and p_o and p_o and p_o are p_o and p_o and p_o and p_o and p_o are p_o and p_o are p_o and p_o and p_o and p_o and p_o are p_o and p_o and p_o are p_o and p_o and p_o are p_o and p_o and p_o and p_o and p_o are p_o and p_o are p_o and p_o and p_o and p_o are p_o and p_o are p_o and p_o and p_o are p_o and p_o are p_o and p_o are p_o and p_o are p_o are p_o and p_o are p_o and p_o are p_o are p_o and p_o are p_o are p_o and p_o are p_o

$$\eta = C_1 J_0(k) + C_2 Y_0(k)$$
.

Substituting values for c_1 and c_2 obtained from

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Eqs.(7) and (8) gives two equations for η and u in terms of $J_0(k)$ and $Y_0(k)$. Next, their dependence on a/λ and b/b_0 is considered (where a is the variable length of the canal). Suppose k < 1, then using Eqs.(3) - (6) and expressions for Bessel functions of small argument, we get Eq.(9). Certain relations between the incident, transmitted and reflected waves (Ref 2, pp 330-331) can now be written down:

$$\frac{\eta_2}{\eta_1} \approx \frac{b_1 - b_0}{b_1 + b_0}, \quad \frac{\eta_0}{\eta_1} \approx \frac{2b_1}{b_1 + b_0}$$

where η_0 , η_1 , η_2 are the amplitudes of the transmitted, incident and reflected waves in the constant parts of the canal. Thus, for small k, the wave reflections take place approximately according to Young's Law; as was first

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shown by Rayleigh (Ref 5). When a/λ and b_1/b_0 are, on the other hand, such that the expressions for Bessel functions of large argument can be used, Green's formula is obtained. In the third case, when a/λ and b_1/b_0 , and hence, k, have intermediate values, calculations must be made with the aid of tables (Ref 6). The author gives the results of such calculations for $a/\lambda = 0.02$, 0.1, 0.5 and 1 with $b_1/b_0 = 2\pi + 1$ (Table 1). Eq.(9) is already satisfied for $a/\lambda = 0.02$. The velocity of propagation of the surface oscillations and the horizontal oscillations of the liquid are seen to be unequal.

b) The depth changes linearly and the width is constant. Let $p = p_0 - xtan \alpha$ and b = constant (Figure 2).

$$k = \frac{2\sigma\sqrt{p}}{\sqrt{g \, tg \, \alpha}}$$

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> we obtain $\eta = C_1 J_0(k) + C_2 Y_0(k)$ and detailed expressions for η and u are obtained as before. When $k \ll 1$, Eq.(10) results. For k = 0, the reflection follows Young's Law and for large k , Green's formula holds. values of a/λ_1 equal to 0.02, 0.1, 0.5 and 1 and $p_0/p_1 = 0.1$ produce the results in Table 2. The table shows that Eqs.(10) hold if $a/\lambda_1 \le 0.02$. c) Width and depth change linearly. Let $b = b_0 - 2x \tan \phi$, $p = p_0 - x \tan \alpha$ and the straight lines meet at a point in the liquid surface. Consequently, S' = pb, $p/p_0 = b/b_0$. Eliminating x from Eq.(2) and

substituting p = p_{o b}

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Plane Free Oscillations of an Ideal Homogeneous Liquid in an Infinite Canal of Variable Cross-section

we get: $\eta = \frac{1}{k} \left[c_1 J_1(k) + c_2 Y_1(k) \right].$

Determining c_1 and c_2 as in the previous examples gives equations for η and u. For large values of k, Green's formula is again recovered. There are 2 figures, 2 tables and 6 references, 2 of which

are English, 1 German and 3 Soviet (two being translations from English and 1 from German).

ASSOCIATION: Arkticheskiy nauchno-issledovatel'skiy institut

(Arctic Scientific Research Institute)

SUBMITTED: March 31, 1958

Card 7/7 1. Liquids--Oscillation

SOV/49-59-11-26/28

AUTHOR: Legen'kov, A. P.

TITLE:

Reflection of Plane Free Waves of an Ideal Homogeneous Liquid in an Infinite Channel with Variable Cross-

Section

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya

1959, Nr li, pp 1717-1720 (USSR)

ABSTRACT: The channel is illustrated schematically in Fig 1 and has a constant depth. The wave propagated to the right of m_0n_0 (Fig 1) is given by Eq (1), where η is the displacement of the surface, σ is the frequency and c_0 is the velocity of propagation. The wave propagated between m_1n_1 and m_0n_0 is given by Eq (2), where C_1 and C_2 are constants, k is given by $k = \frac{2\pi}{100} \cdot \frac{b}{100} \cdot \frac{a}{100}$

b is the variable width in the region a, a the length of this region, b1 is the width of the left-hand part of the channel (Fig 1), b0 is the width of the right-hand part of the channel, and $\tilde{\lambda}$ is the wavelength at the ends of the channel. Since the gradients across the boundary mono are the same, the coefficients C1 and C2 can be

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SOV/49-59-11-26/28

Reflection of Plane Free Waves of an Ideal Homogeneous Liquid in an Infinite Channel with Variable Cross-Section

determined. It is found that the ratio of the amplitude of the reflected wave to that of the incident wave is given by Eq (5). This formula holds for small k. It is shown that under certain conditions, eg $a/\lambda = 0.3$, the amplitude of the reflected wave may exceed the amplitude of the incident wave and the phases of the two waves may differ by 180°. Moreover, at constant a/ λ the reflection is greater as b_l/b_o increases. At constant b_l/b_o the reflection at first increases with increasing a/ λ and then falls off to zero. The second part of the paper treats the case shown in Fig 2 in which the depth of the channel is variable but the width is constant. It is shown that under certain conditions, eg $a/\lambda_1 = 0.3$, where λ_1 is the wavelength in that part of the channel in which the depth is p1, the phase of the reflected wave may differ from that of the incident wave by 180° and the amplitude of the former may exceed the amplitude of the latter. At constant a/λ_1 and when the phases of the two waves are the same, the reflection increases with decreasing po/p

Card 2/3

SOV/49-59-11-26/28

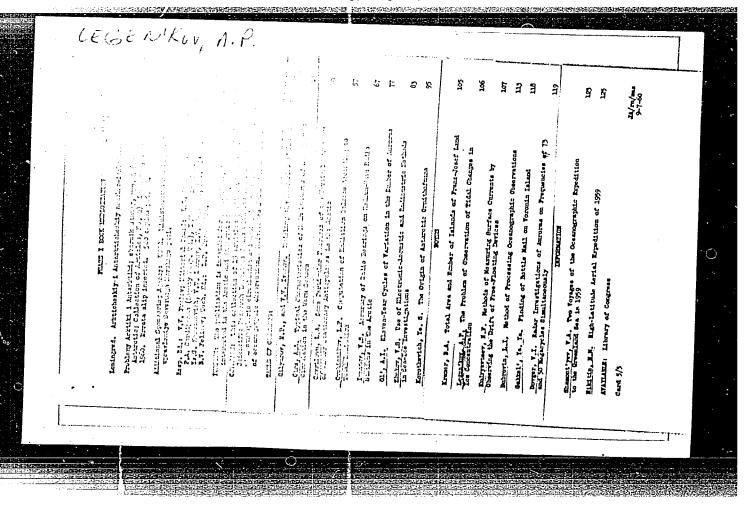
Reflection of Plane Free Waves of an Ideal Homogeneous Liquid in an Infinite Channel with Variable Cross-Section

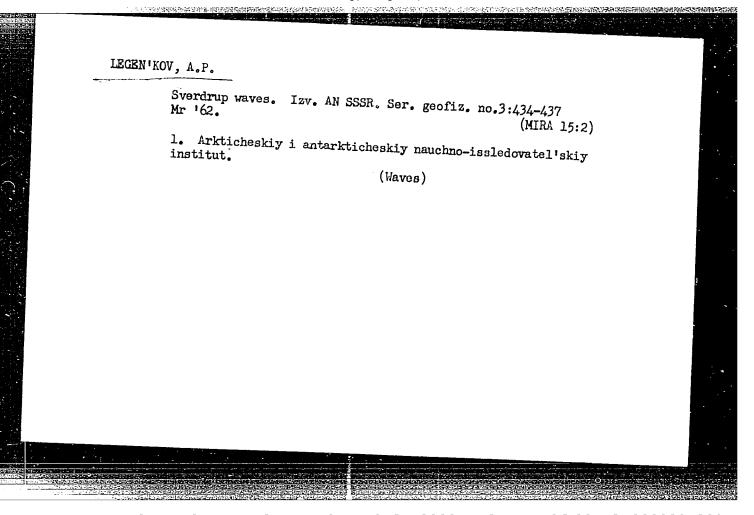
(Fig 2) and in the opposite case it decreases. The final section of the paper is concerned with reflected waves in the general case, i.e. when both the width and the depth are variable. The results obtained are summarized in Tables 1-3. Table 1 gives the ratio of amplitudes of the reflected and incident waves as a function of the width of the channel (constant depth, variable width; Fig 1), Table 2 gives this ratio as a function of channel depth; Fig 2, and Table 3 gives the ratio as a function of the width and the depth of the channel. There are 2 figures, 3 tables and 2 Soviet references (one a translation from English).

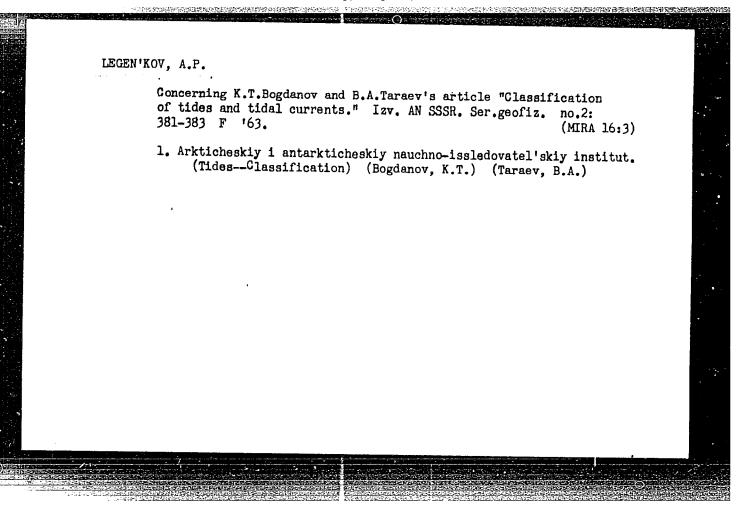
ASSOCIATION: Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut (Arctic and Antarctic Scientific Research

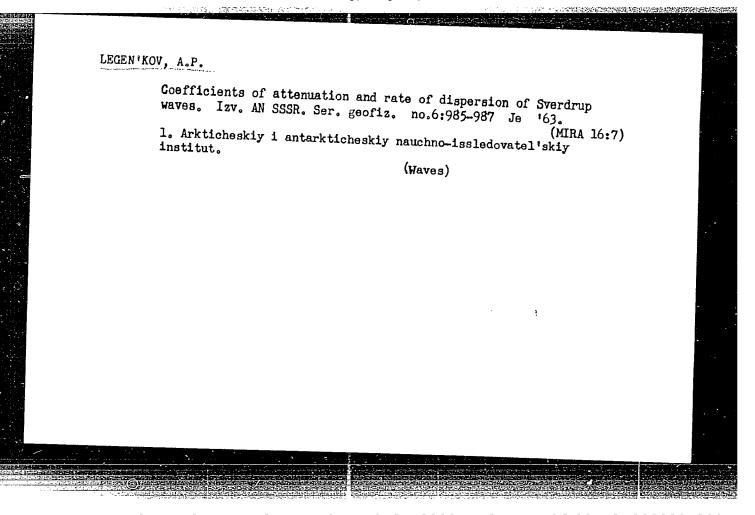
SUBMITTED: October 28, 1958

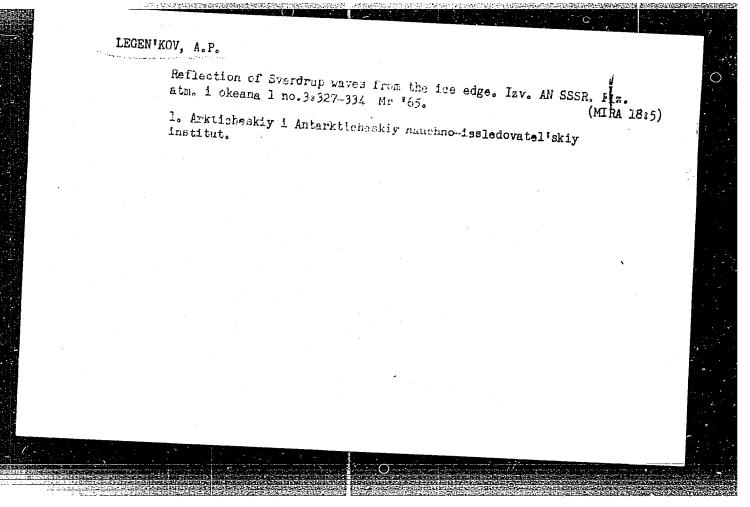
Card 3/3

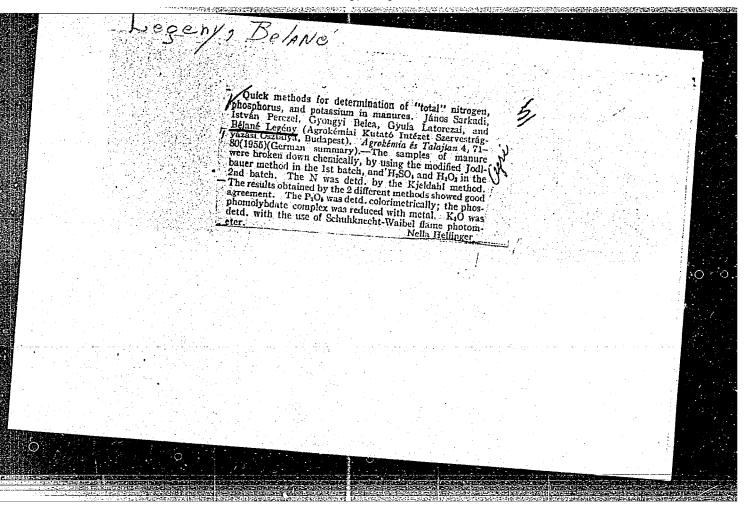


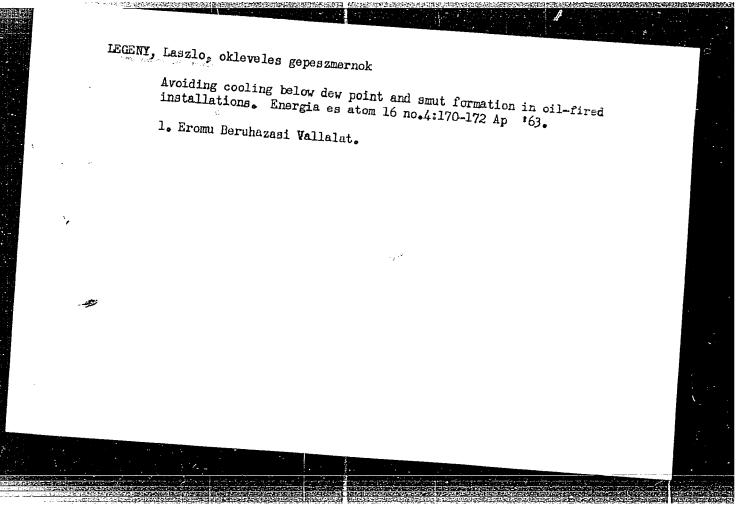




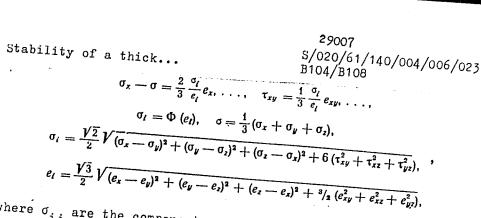








s/020/61/140/004/006/023 B104/B108 1103 1327 244200 Stability of a thick rectangular, freely resting plate Legenya, I. D. AUTHOR: Akademiya nauk SSSR. Doklady, v. 140, no. 4, 1961, 776-779 TITLE: TEXT: In this investigation the author makes use of the relations of the theory of small elastoplastic deformations. Following ideas of PERIODICAL: Ukr. matem. zhurn., 6, no. 2 (1954)), a study of the loss of stability is deduced from general relations between stress and deformation. The plate (Fig. 1) is compressed by a homogeneous load in direction of the z-axis. Compressibility of the material is neglected. The relations of the theory of small elastoplastic deformations are given in the form card 1/43



where σ_{ij} are the components of stress, and e_{ij} those of deformation. The author tries to find solutions in the form $\sigma_{ij} = \sigma_{ij}^0 + \sigma_{ij}^!$; $u = u^0 + u^!$; The superscript o indicates the unperturbed component, the prime indicates the perturbation. u is the displacement in the x-direction. By linearization of (1) the author obtains expressions for lateral bulgings of the plate. In a study of the boundary value problem of the lateral surfaces of the plate, a transcendental equation is obtained for the critical deformation;

Card 2/4

Stability of a thick... S/020/61/140/004/006/023
B104/B108

 $c_{2}^{0} = \{ \gamma (\sigma^{2} + \lambda^{2}) [m^{2} (\sigma^{2} - \gamma^{2}) - 2n^{2} (\sigma^{2} + \gamma^{2})] \text{ th } (\lambda a) - \lambda (\sigma^{2} - \gamma^{2}) [m^{2} (\sigma^{2} + \lambda^{2}) - 2n^{2} (\sigma^{2} - \lambda^{2})] \text{ th } (\lambda a) - \lambda (\gamma^{2} + \lambda^{2}) \text{ th } (\sigma a) \} / 3m^{4} [\gamma (\sigma^{2} + \lambda^{2}) \text{ th } (\lambda a) - \lambda (\sigma^{2} - \gamma^{2}) \text{ tg } (\gamma a)].$

 $\lambda = \frac{1}{2} \left\{ -\left[(6+k) \, m^2 - 4\sigma^2 \right] + \right. \\ \left. + \left\{ \left[(6+k) \, m^2 - 4\sigma^2 \right]^2 - 8 \left[2\sigma^4 - (6+k) \, n^2 m^2 \right] \right\}^{1/2} \right\}^{1/2} \\ \gamma = \frac{1}{2} \left\{ \left[(6+k) \, m^2 - 4\sigma^2 \right] + \right. \\ \left. + \left\{ \left[(6+k) \, m^2 - 4\sigma^2 \right]^2 - 8 \left[2\sigma^4 - (6+k) \, n^2 m^2 \right] \right\}^{1/2} \right\}^{1/2} \right\}^{1/2}$

 $\sigma^2 = m^2 + n^2$. Determination of the critical force by Eq. (19) is discussed. Finally, Eq. (19) is discussed for thin plates. B. G. Galerkin (Sobr. soch., 1, 2, Izd. AN SSSR, 1952) is mentioned. There are 2 figures and 5 Soviet references.

ASSOCIATION: Voronezhskiy Losudarstvennyy universitet (Voronezh Association State University)

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CIA-RDP86-00513R0009291200

LEGENYA, I.D. (Voronezh)

Loss of stability of a thick square freely-supported plate. Izv.AN SSSR. Otd.tekh.nauk.Mekh.i mashinostr. no.6:165-168 N-D *62. (MIRA 15:12) (Elastic plates and shells)

LEGENYA, I. D.

Stability of a thick plate subjected to plastic deformation. Dokl. AN SSSR 147 no.6:1314-1317 D '62.

(MIRA 16:1)

1. Voronezhskiy gosudarstvennyy universitet. Predstavleno akademikom A. Yu Ishlinskim.

(Plasticity) (Deformations(Mechanics))

"APPROVED FOR RELEASE: Monday, July 31, 2000

CIA-RDP86-00513R000929120

8/020/63/149/004/007/025 B104/B186

AUTHOR:

Legenya, I. D.

TITLE:

On the stability of a compressed plate taking account

of the rotation angle

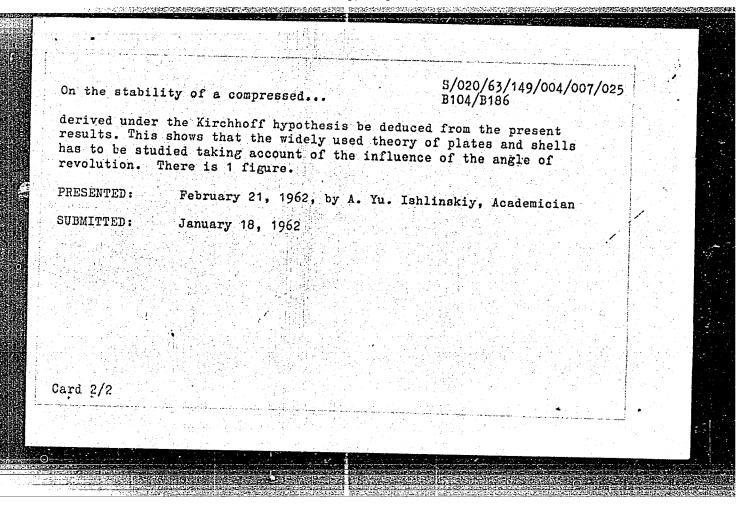
PERIODICAL:

Akademiya nauk SSSR. Doklady, v. 149, no. 4, 1963,

802 - 805

TEXT: Proceeding from the equations of the stability theory of V. V. Novozhilov (Osnovy nelineynoy teorii uprugosti - Basis of non-linear theory of elasticity, 1948), the loss of stability of a thick freely supported rectangular plate which is uniformly compressed in one direction is investigated. It is shown that, in the limiting case of a small plate thickness, the formulas of the theory of plate stability obtained under the hypothesis of Kirchhoff (S.P. Timoshenko, Ustoychivost' uprugikh sistem - Stability of elastic systems, 1955) do not follow from the results obtained here. Only if the influence of the angle of revolution is neglected can the stability of thin plates

Card 1/2



EPA(s)-2/EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pt-10/Pu-4 L 14448-65 JD/WW/JG ACCESSION NR: AP4023361 \$/0198/64/010/002 AUTHOR: Iviev, D. D. (Voronezh); Legenya, I. D. (Voronezh) TITLE: The stability of a plate under small deformations in the gen-SOURCE: Pry*kladna mekhanika, v. 10, no. 2, 1964, 117-123 TOPIC TACS: strain theory, nonlinear strain theory, plate stability, plate deformation, compressive stress, stress-strain relation ABSTRACT: The authors discuss the cylindrical buckling of a rectangular plate made of an incompressible material under longitudinal compressic with a nonlinear stress-strain relationship. It is assumed that the scrain potential is a function of the second and third invariants of the stress deviator. For ulas for determining the buckling stresses are derived for the case of one-side buckling of both thick and thin plates simply supported at short edges. An example in which two tests (tension-compression and pure shear) are necessary for determining the constants of the strain potential is analyzed in detail. The stability of constructions made of metastable alloys (for Card 1/2

L 111148-65 ACCESSION NR: AP4023361					
which the above-mentioned test results are independent of each other) can be investigated by taking into account the third invariant of the stress deviator. Orig. art. has: 2 figures and 27 formulas. ASSOCIATION: Voronez ky*y derzhavny*y universy*tet (Voronezh State					
University) SUBMITTED: 16%ep63		ENCL:	. 00		
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경기 이 경기 회원으로 관련된 개발 보이라고 하고 있다.	[기교] 기교 등의 경기를 보고 있다. [기교] 기교 등의 기교 등의 기교 등의 기교 등의 기교 등의 기교 기교 등의 기교 등의 기교 등의 기교 등의 기교 등의 기교				
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HEGENYA, J.D. (Voronezh) Stability of a thick plate under the action of evenly distributed tangential stresser. Frikl. makh. 1 mm. 9:45-51 (MIBA 18:16). L. Vorenezhakiy gosudaratvennyy universitet.

LEGENYEI, L.

We should make preparations for autumn instruction. p. 4. REFULES. Budape:t. Vol. 8, No. 15, Sept. 1955

SOURCE: East European Accessions List (EEAL) Library of Congress Vol. 5, No. 6, June 1956

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Eudapest, Hungary

So: East European Accession, vol. 5, No. 5, Nay 1056

LEGENYEI, L.

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SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 9, Sept. 1957. Uncl.

LEGENYEI, L.

More attention to the training of beginners.

P. 3 (REPULES) Budapest, Hungary Vol. 7, No. 5, Aug. 1957.

SO: :Monthly Index of East European Acessions (ALEI) Vol. 6, Mo. 11 Movember 1957.

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LEGENYEI, L.

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SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

LEGERYEI, L.

A dangerous take off; the last day of October 1956.

P. 13. (REPULES.) (Budapest, Hungary) Vol. 11, No. 1, Jan. 1958

SO: Monthly Index of East European Accession (EMAI) LC. Vol. 7, No. 5, 1958

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Comparative studies on methods of determination of the effectiveness of heparin with special reference to the selection of the suitable method for the 2nd edition of the Czechoslovak Pharmacopeia. Cesk. farm. 3 no.6:219-221 Je 154.

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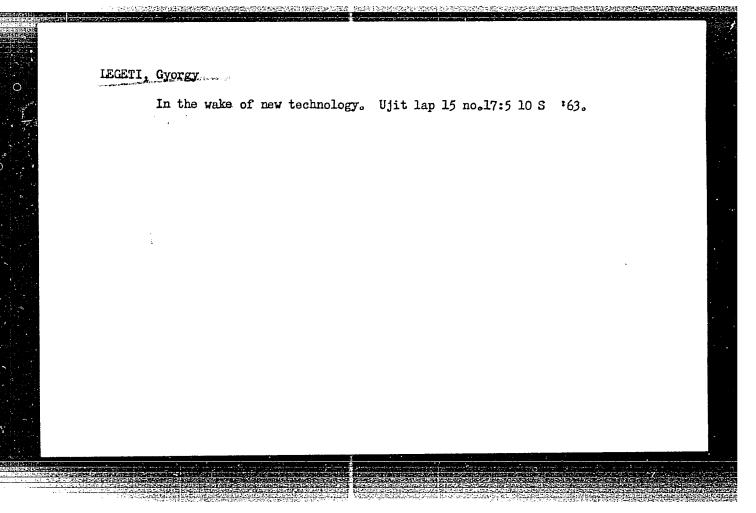
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New method of determination of afficacy of heparin in vitro. Cas.
lek. cask. 93 no.46:1274-1277 12 Nov 54.

1. Z Kontrolniho ustavu farmaceutickeho.
(REPARIN

efficacy determ. in vitro, new method)



DEGRYDA, A. I., DEMIROVSKIY, YE. I. (engineers)	
Road Machinery	
Set of machines for concrete road paving. Nekh.trud.rab. 6 no. 5, 1952.	
	,
Monthly List of Russian Accessions, Library of Congress, August, 1952. UHC-ASSIFIED.	
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	in a singularit

- 1. IEGEYDA, A. I.; NEMIROVSKIY, YE. I., Engs.
- 2. USSR 600
- 4. Road Machinery
- 7. Machines for building concrete roads, Vest. mash, 32, No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R0009291200

IEGEYDA, L.T., assistent (Odessa)

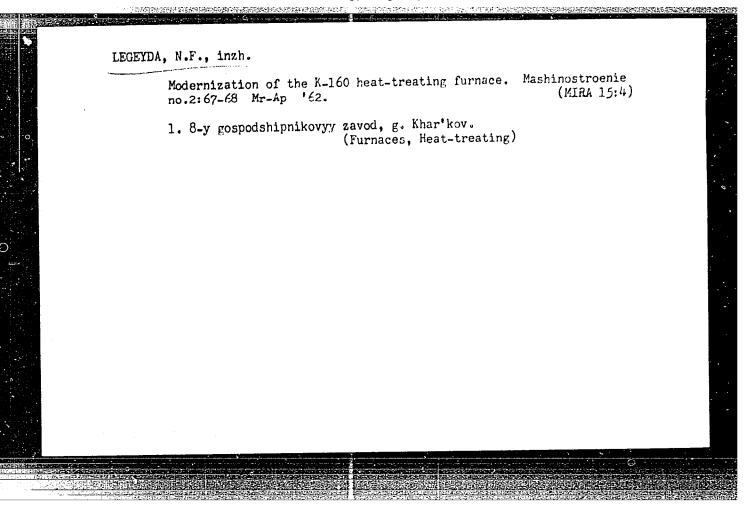
Intubation of the trachea "blindly" following a guide. Frot. (SEA 18:10)

chel.-lits. khir. no.1:11-13 '65.

LEGEYDA, N.F., inzh.

Modernization of the K-160 hardening and tempering machine unit.
Metalloved. i term. obr. met. no.3:60 Mr '61. (MIRA 14:6)

1. Ukrainskiy nauchno-issledovate skiy institut metallov. (Furnaces, Heat-treating)



s/276/63/000/001/006/028 A006/A101

AUTHORS: Kazarnovskiy, D. S., Legeyda, N. F., Tseluyko, V. I.

TITLE: Strengthening heat treatment of low-carbon steel, containing arsenic

FERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no. 1, 1.63, 40, abstract 1B207 ("Sb. tr. Ukr. n.-i. in-t metallov" 1962, no. 8,

318 - 326)

TEXT: The investigation was made on rolled 3 (8t. 3kp)steel sections. The steel was melted in 350-ton tilting open-hearth furnaces on phosphorous iron of the following composition: (in%) C 0.16 - 0.17; S 0.028 - 0.058; P 0.021 - 0.031; Mn 0.44 - 0.50; Si 0 - 0.15; As 0.06 - 0.13. The mechanical properties were tested; the toughness of the steel was determined prior and after aging; the dependence of toughness upon test temperature and the condition of the steel was also determined (after rolling, after rolling and aging, heat treatment, and heat treatment and aging). The fatigue strength of the steel in the initial and thermally improved state was also determined. The authors studied the effect of welding upon the properties of thermally strengthened steel, containing arsenic; they

Card 1/2

s/276/63/000/001/006/028 A006/A101

Strengthening heat treatment of ...

determined the toughness of specimens prior and after electric welding. As a result of the investigation performed it was established that rimming steel (St.3) and killed steel (St.3sp) containing up to 0.15% As, were considerably improved after quenching from 910°C, ductility and toughness being satisfactory. Welding does not impair the strength characteristics of the steel obtained by quenching. There are 5 figures and 6 references.

T. Kislyakova

[Abstracter's note: Complete translation]

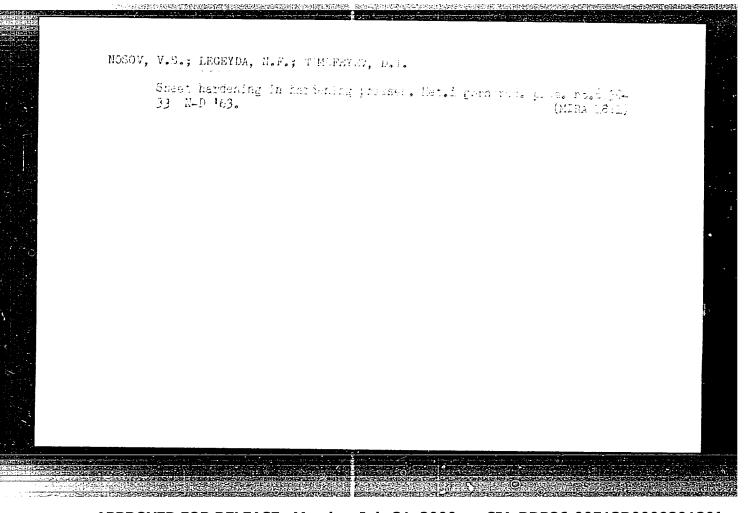
Card 2/2

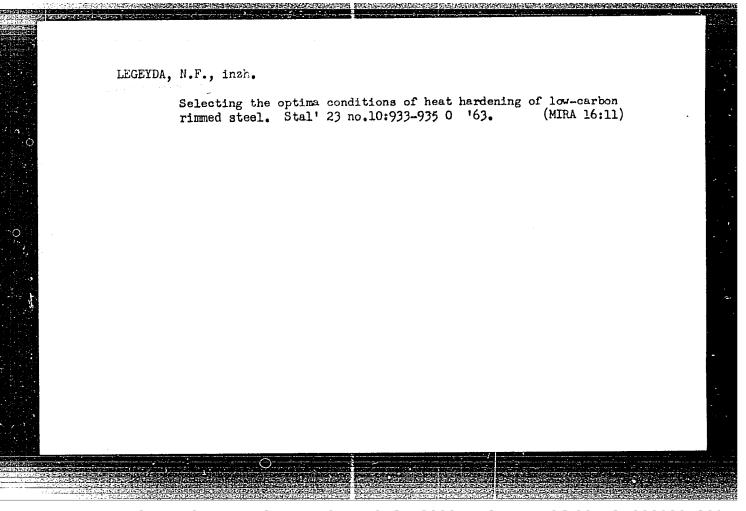
MOSOV, V. S., inzh.; LEGRYDA, N. P., inzh.; IMSHEMETSKIY, V. I., inzh.[deceased]

Hardening by heat treatment of low-carbon steels. Met. 1 gornorud. prom. no.1:25-30 Ja-F '63. (MRA 16:4)

1. Ukrainskiy institut metallov (for Mosov, Legeyda). 2. Kommunarskiy metallurgicheskiy zavod (for Imshemetskiy).

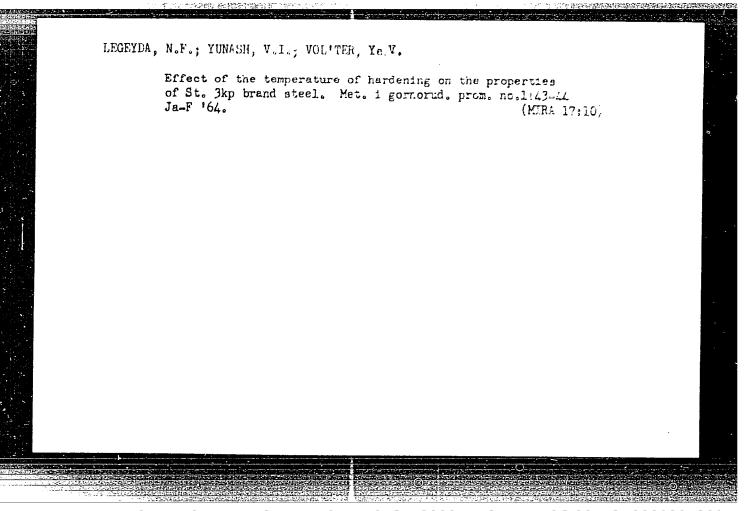
(Steel-Hardening)





Hechanical properties of St Skp steel depending on conditions of heat treatment. Metalloved. i term. obr. met. no.4; 38-40 Ap '64. (MIRA 17:0)

1. Ukrainskiy neuchno-losledovatel'skiy institut metallov.



LEGETDA, N.F.; TYURIN, N.F.; NOSOV, V.S.

Investigatinf the mechanical properties of thick St. 3kp steel sheet made from various parts in height of an ingot, before and after heat treatment. Sbor. trud. UNIIM no.9:39%-404 164 (MIPA 18:1)

GOLUBOV, M.M.; LEMENDA, N.F.; WARHAROV, A.Ye., FADEYEV, A.Yu.; FANISIN, N.I.;
SAFRYGIN, KL.M.; MOSOV, V.S.; VOL!TER, ie.V.; SHBL!CA, Ye.A.;
MEROSHNICHENKO, S.I.

Effect of the rate of plate cooling on the quality of the metal
after rolling. Met. i gernorud. prom. no.1:33-36 Ja.F 165.

(MIRA 18:3)

EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)OC/MCW ACC NR: AP5027704 SOURCE CODE: UR/0129/65/000/011/0020/0021 AUTHOR: Zakharov, A. Ye.; Legeyda, M. F.; Nosov, V. S.; Vol'ter, Ye. V. 44155 ORG: none TITLE: Heat treatment of low-carbon and low-alloy steel plate 47,55, 13 SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 20-21 TOPIC TAGS: metal heat treatment, tempering, cooling, ferritic steel, pearlite steel 44,55 ABSTRACT: The Ukrainian Scientific Research Institute of Metals in collaboration with the TanlicherMET and the Kommunar Metallurgical Plant developed a new industrial process of the heat treatment (quenching and tempering) of St. 3 steel plate: quenching from 890-910°C and water cooling in the press, followed by tempering at 500°C. At the Kommunar Plant the thermal hardening is carried out in continuous roller hearth furnaces. Plate 4-50 mm thick and up to 12 m long can be cooled in the press. The squeeze exerted by the press is 130 tons; the water-spray pressure is 2-3 atm. The microstructure of the plate is initially (after rolling) ferritic with a small amount of pearlite; following thermal hardening this microstructure is pearliticferritic (the amount of pearlite increases). Studies of the mechanical properties of St. 3ps steel before and after this heat treatment revealed a marked increase in the impact strength of thermally hardened steel (3.9-7.4 kg-m/cm2) compared with the im-1/2 Card 669.15-194:621.785.74 UDC:

L 9643-66

ACC NR: AP5027704

pact strength of the nonhardened steel (1-1.7 kg-m/cm2) at temperatures as low as -40°C. In both cases the threshold of cold brittleness is the same, -25 to -30°C. Thermal hardening enhances the fatigue limit from 6 to 32% and reduces susceptibility to stress concentration. This technique of heat treatment was experimentally tested not only in furnaces but also in rolling mills on employing a special installation for utilizing the heat of rolling in order to increase the mechanical properties of the plate. In addition, the effect of accelerated water cooling was also investigated, for the steels 14KhGS, SKhL-4, 09G2, 4S, SK, M16S, 3M, 20K (plate thickness 10-24 mm) Pindings: thermal hardening during rolling increases tensile and yield strength by an average of 2-4 kg per mm² and impact strength, by 0.5-1.5 kg-m/cm², while at the same time reducing relative elongation by ~27, i. e. the increase in mechanical properties is considerable. As the thickness of the steel plate increases, the effect produced by water cooling decreases, and in the presence of 20-mm thickness this effect no longer is active. Orig. art. has: 1 figure.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF:

EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) IJP(c) JD 13051-66 SCURCE CODE: UR/0133/65/000/011/1036/1039 ACC NR. AP5027912 AUTHOR: Kazarnovskiy, D. S. (Doctor of tychnical sciences); Dryapik, Ye. P. (Engineer); Legeyda, N. F. (Engineer); Zakharov, A. Ye. (Engineer); Balon, V. I. (Engineer); Vol'ter, Ye. V. (Engineer); Nosov, V. S. (Engineer); Konstantinova, T. A. (Engineer); Sukhomlina, A. P. (Engineer) ORG: Ukrainskiy n.-i. Institute of Metals (Ukrainskiy n.-i. institut metallov); Kommunarskiy Metallurgical Plant (Kommunarskiy metallurgicheskiy zavod) TITLE: Strengthening of low carbon semikilled St. 3ps steel by heat treatment SOURCE: Stal', no. 11, 1965, 1036-1039 TOPIC TAGS: carbon steel, low carbon steel, heat treating furnace ABSTRACT: A heat treatment was developed for St. 3ps steel plates of 12 and 25 mm thickness by heating in a furnace to the temperature range 890-920°C and water cooling on a quench press. This treatment resulted in an average strengthening of 20% and a satisfactory plasticity level. Three separate heats of steel were heat treated. The compositions ranged as follows: C--0.16-0.19%; Mn--0.46-0.52%; Si--0.08-0.12%; S--0.036-0.042%; Ps--0.012-0.034% and Cu--0.050-0.058%. The details of the process were described. The steel plates were heated in a roller type furnace to temperature for a holding time of 1.5 min/mm. Cooling was done in a quench press with a water flow UDC: 621.78 Card 1/2 -

L 13051-66 ACC NR: AP5027912

rate of 1700 m3/hr. After quenching, some warpage could be noted, particularly in thicknesses up to 20 mm. Mechanical properties of the heat treated plate in flat and round specimens were determined. Yield strength, ultimate strength, % elongation, % reduction in area and impact resistance were tabulated for heat I (12 mm thick), heat II (12 and 25 mm thick) and heat III (25 mm thick). Frequency curves were plotted for the mechanical properties of the heat treated plate (frequency of occurrence as a function of strength, ductility and impact resistance) and average values were given for these properties. The effect of tempering after quenching was also noted. In general, the strength decreased slightly and the ductility increased. Tempering had little effect on impact resistance. Microstructures showed that the structures after quenching were predominantly pearlitic-ferritic, with needle-like ferrite distributed along grain boundaries for the 12 mm thick plates while in the 25 mm thick plates there was smaller grained, needle-like ferrite. The highest strengths and lowest ductility were obtained in the 12 mm plate. However, the mechanical properties obtained never fell below the following levels for the heat treated condition: yield stress-30 kg/mm², ultimate strength--44 kg/mm², % elongation--16, and impact strength (at -40°C)--3 kgm/cm2. It was recommended that low carbon steel plate, strengthened by the above treatment, be used in place of low alloyed steel. (To be effective the optimum carbon content for heat treatment should be 0.12-0.18%. Orig. art. has: 3 figures. 2 tables.

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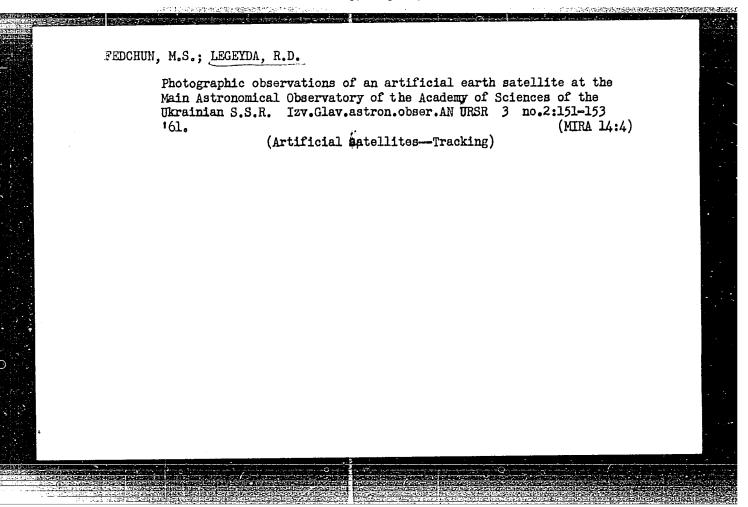
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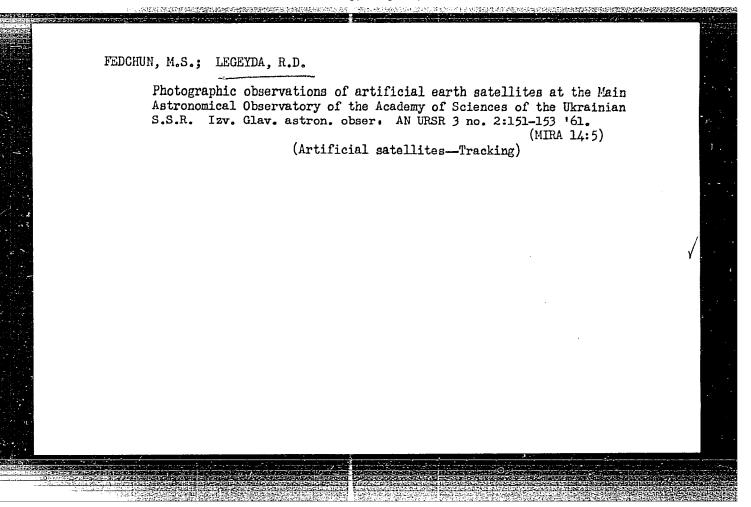
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CIA-RDP86-00513R000929120

L 24799_66 EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(k)/EWP(t) IJP(c) JD/HM ACC NR AF6011533 SOURCE CODE: UR/0135/66/000/004/0001/0004 AUTHOR: Legeyda, N. F. (Engineer); Savchenkov, V. A. (Candidate of technical sciences Sotnik, T. S. (Engineer) ORG: Ukrainian Scientific-Research Institute of Metals (Ukrainskiy nauchnoissledovatel'skiy institut metallov) TITLE: Weldability of quench-hardened St. 3ps steel SOURCE: Svarochnoye proizvodstvo, no. 4, 1966, 1-4 TOPIC TAGS: weldability, metal hardening, metal welding, impact strength, steel/ St. 3ps steel ABSTRACT: Quench hardening of St. 3ps steel from the temperature range 890-910C increases its strength by at least 30%, lowers the cold brittleness threshold to -60C, raises the mount of pseudoeutectoid in the steel, and markedly reduces the grain size. After rolling and hardening, St. 3ps steel was found to have good weldability. Hardening considerably increases notch toughness in the weld-adjacent zone at low temperatures, lowers the nil ductility transition temperature (NDT), widens at low temperatures, lowers the nil ductility transition temperature (NDT), widens the range of efficient welding conditions, and lowers the sensitivity of the steel to	
bility. Hardening considerably increases in the manufactures, lowers the nil ductility transition temperature (NDT), widens at low temperatures, lowers the nil ductility transition temperature (NDT), widens the range of efficient welding conditions, and lowers the sensitivity of the steel to are burns. St. 3ps welded after hardening is resistant to the development of cracks in the weld-adjacent zone. [NT] SUB CODE: 11/ SUBM DATE: none/ Cord 1/1	



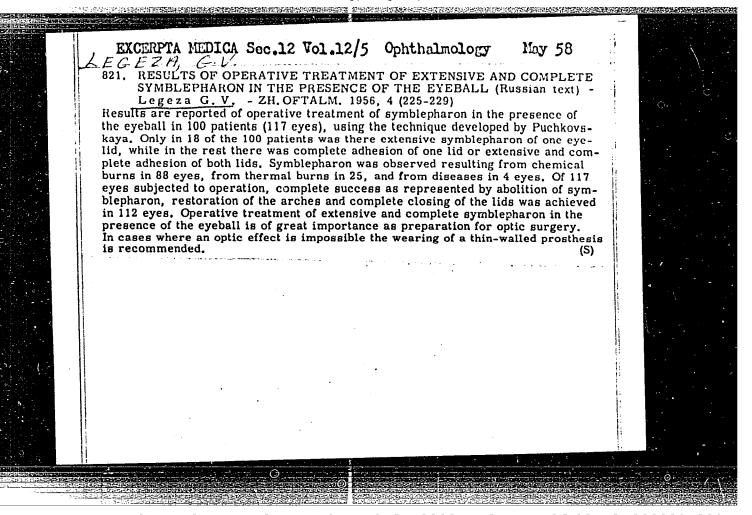


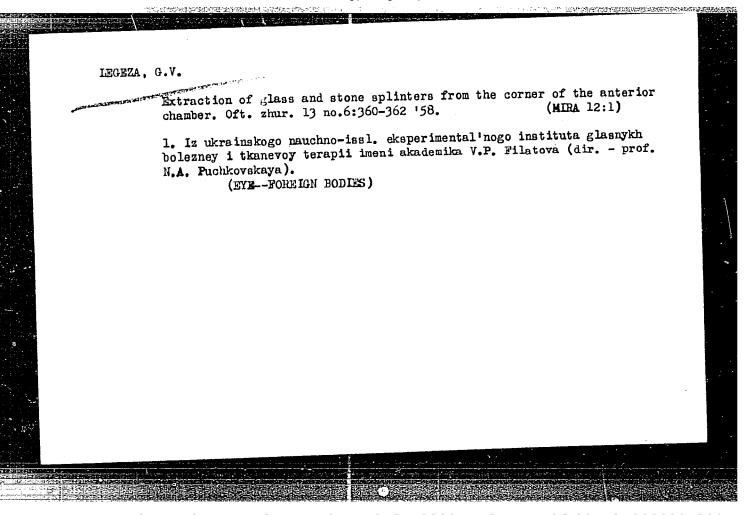
Geochemistry of tim in the Lagratic process. Geochemic and the Lagratic process. Geochemica and the Lagratic process. Geochemical and the Lagratic process. Geochem

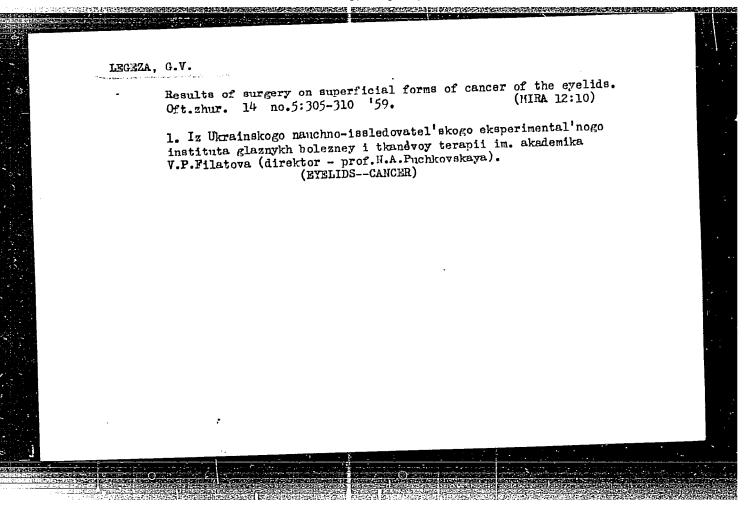
SZENTIVANYI, A.; FILIPP. G.; LEGEZA, G.

Investigations on tobacco sensitivity; tobacco sensitivity as occupational disease. Acta med. hung. 3 no.2:175-184 1952. (CIML 23:4)

1. Of the First Department of Medicine of Debrecen University.







LEGEZA, G. V., kand. med. nauk

Use of a stent in free skin transplantation on the eyelids. Oft.

(MIRA 15:4)

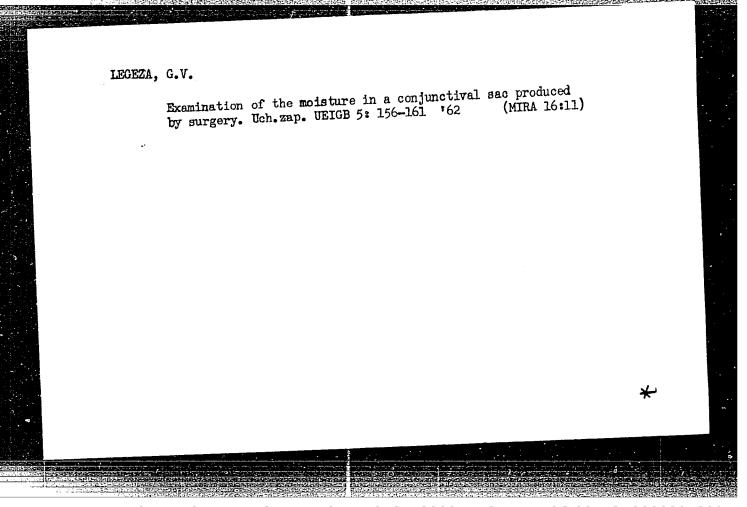
zhur. no.2:110-112 '62.

1. Iz Ukrainskogo nauchno-issledovatel'skogo eksperimental'nogo
instituta glaznykh bolezney i tkanevoy terapii im. akad. V. P.

Filatova (direktor - chlen-korrespondent AMN SSSR prof. N. A.

Puchkovskaya)

(SKIN-TRANSPLANTATION) (EYELIDS-SURGERY)



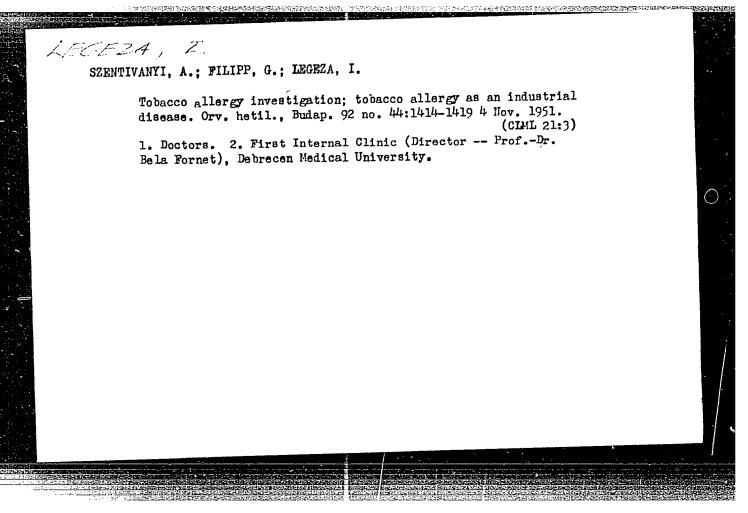
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LEGEZA, G. V., kand. med. nauk

Knife for cutting the mucosa of the lips. Oft. zhur. 17 no.4:
242-243 '62.

1. Iz Ukrainskogo nauchno-issledovatel'skogo eksperimental'nogo
instituta glaznykh bolezney i tkanevoy terapii ineni akademika
V. P. Filatova (direktor - chlen-korrespondent AMTI SSSR prof.
N. A. Puchkovskaya).

(SURGICAL INSTRUMENTS AND APPARATUS)
(OPHTHAIMOLOGY - EQUIPMENT AND SUPPLIES)



MUSIYERKO, V.P.; FOLMTAYEO, R.1.; SKARCHERRO, V.E.; FROLDVA, V.3.;
GALIOH, F.N.; Frimizali uchastiye: legaza, L.F.; Kubyshkira, T.A.

Conversion of n-hexane on chromium-magnesium oxide cutalysts.

Ukr. khim. zhur. 30 no.9:915-918 '64. (MIRA 17:10)

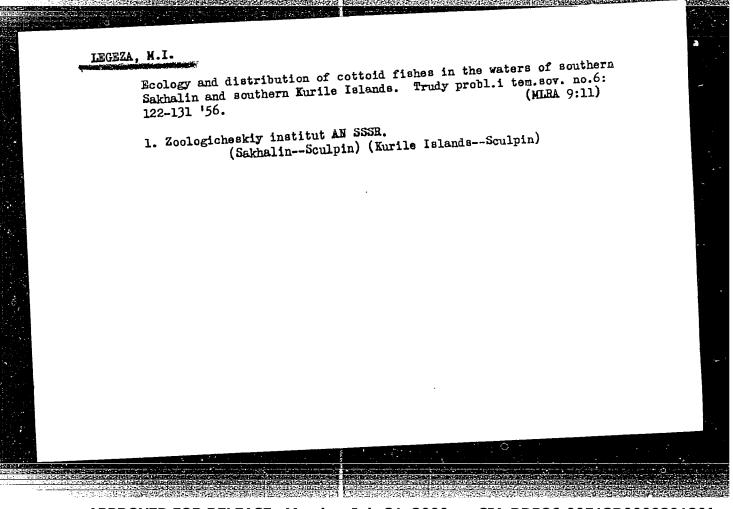
1. Institut vysokomolekulyarnykh soyedineniy AN UkrSSR.

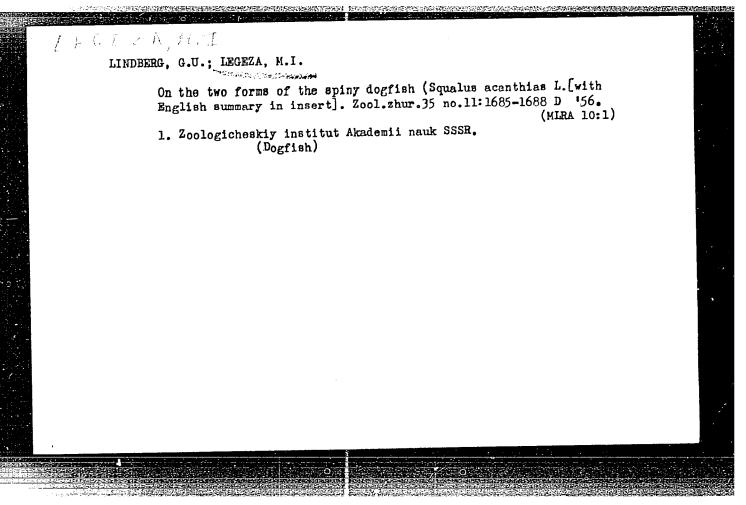
LINDBERG, L. U. MECEZA, M. I.

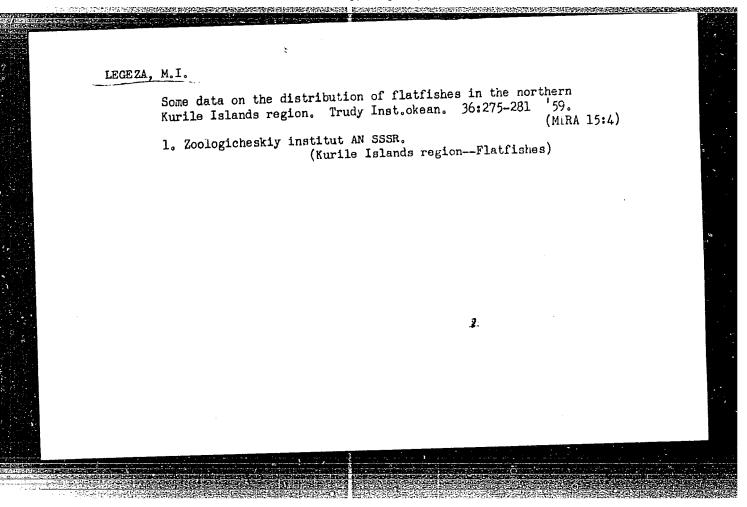
Gambusia

Systematic aspects of Gambusia, acclaimated to the Soviet Union, Zool. zhur. 31 No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, July 1952, UNCL.







LINDBERG, G.U.; LEGEZA, M.I.; PAVLOVSKIY, Ye.M., akad., glavnyy red.;

HYKHOVSKIY, B.Ie., red.; SHTAKEL'BERG, A.A., red.; AMDRIYASHEV,

A.P., red.; SMIRMOVA, A.V., tekin.red.

[Fishes of the Sea of Japan and contiguous areas of the
Sea of Okhotsk and the Yellow Sea.Ft.1: Amphioxi, Petromysones, Myxini, Elasmobranchii, Holocephali Ryby Laponskogo
moria i sopredel'nykh chastei Okhotskogo i Zheltogo merei.

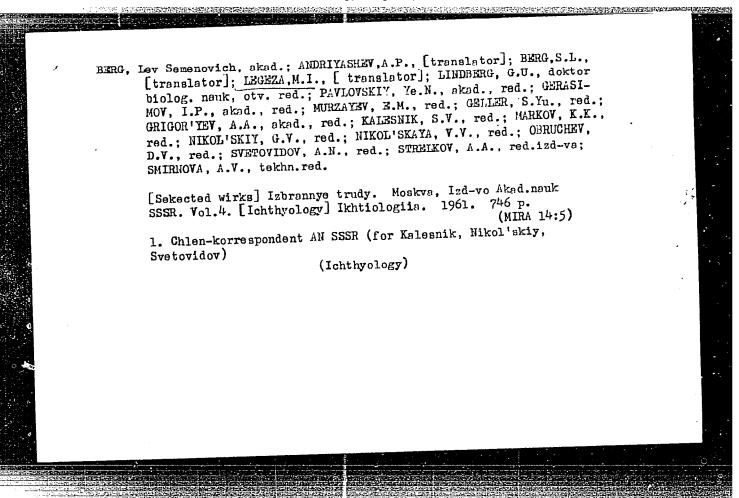
Moskva, Isd.-vo Akad.nauk SSSR. Part 1. Amphioxi, Petromysones,

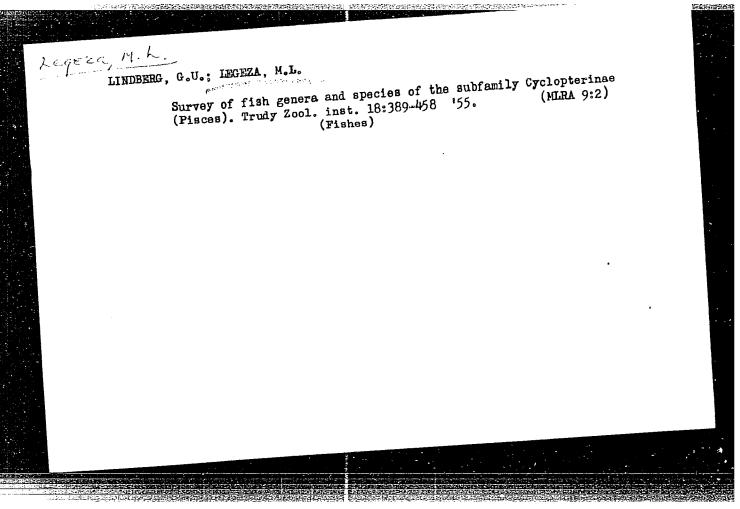
Myxini, Elasmobranchii, Holocephali. 1959.207p. (Opredeliteli
po faune SSSR, mo.68)...

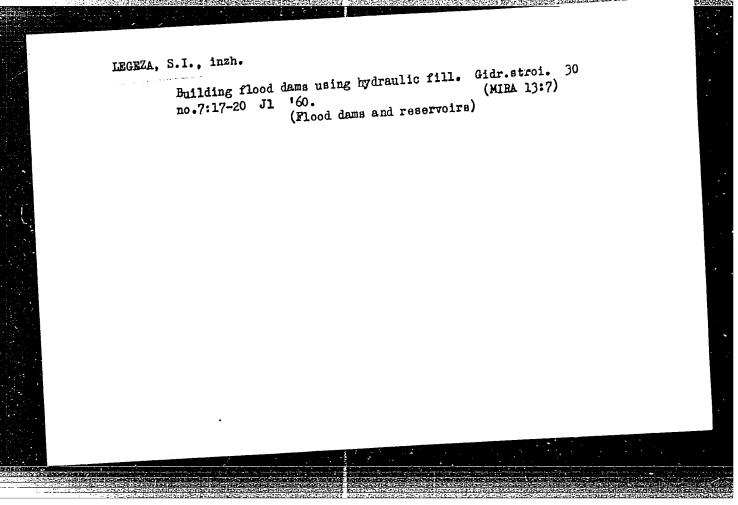
(MIRA 12:12)

1. Direktor Zoologicheskogo Instituta AN SSSR (for Favlovskiy)

(Japan, Sea of--Fishes)







APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R0009291200

LEGEZA, V. D.

Legeza, V. D. -- "Investigation of the Work of the Loading Device of a Cutting and Loading Machine with Cantilever Scrapers under the Conditions of the Gently-Sloping Strata of the Chelyabinak Basin." Min Higher Education USSR, Sverdlovsk Mining Inst imeni V. V. Vakhrushev, Sverdlovsk, 1955 (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', Mc. 23, Moscow, Jun 55, pp 87-104

LEGEZA, V.D., kand.tekhn.nauk; TURUTA, N.U., dots.; FILATOV, L.V., inzh.

Bffect of water consumption, depth, and angle of borehole inclination on the dopth of boring by means of an air sinker. Izv.vys.ucheb.zav.; gor.zhur. no.3:81-83 '59.

(MRA 13:4)

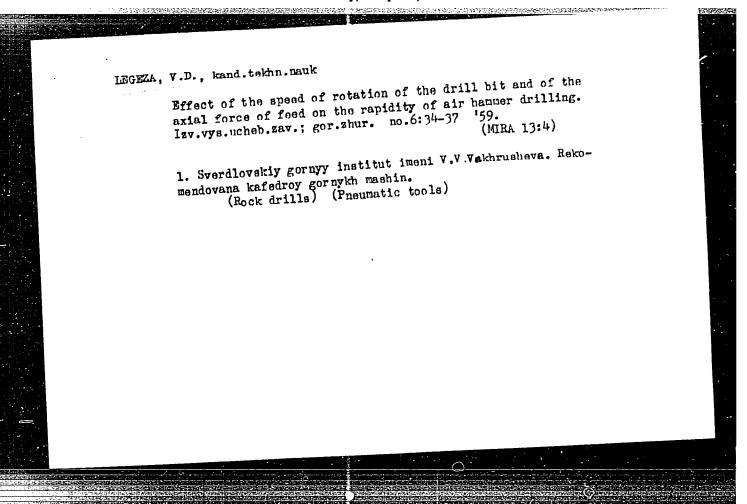
1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva, Rokomendovana kafedroy gornykh mashin i rudnichnogo transporta.

(Boring)

TURUTA, N.U., dotsent; LEGEZA, V.D., kand.tekhn.nauk

Comparative evaluation of boring machinery equipped with air sinkers. Izv.vys.ucheb.zav.; gor.zhur. no.4:5?-64 '59. (MIRA 17:5)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva. Rekomendovana kafedroy gornykh mashin i rudnichnogo transporta. (Boring machinery)



TURUTA, N.U., dotsent; LEGEZA, V.D., kand.tekhn.nauk; FILATOV, L.V., inzh.

Rate of boring with pneumatic hammers and expenditure of air as functions of compressed air pressure. Izv. vys. ucheb. zav.; gor. zhur. no.11:51-53 1959. (MIRA 14:5)

1. Sverdlovskiy gornyy institut imeni V. V. Vakhrusheva. Rekomendovana kafedroy gornykh mashin i rudnichnogo transporta. (Rock drills—Pneumatic driving)

Adoption of sinker drills in the mines of the Mizhniy Tagil metallurgical combine. Gor. zhur. no.4:30-32 Ap '60. (MIRA 14:6)

1. Sverdlobskiy gornyy institut (for Legeza). 2. Nachal'nik burovykh rabot shakhty Magnetitovaya, Vysokogorskiy rudnik (for Borokhov).

(Nizhniy Tagil region—Rock drills)

LEGEZA, V. D., kand. tekhn. nauk

Effect of the pressure of compressed air and the hardness of rocks on the rate of boring with sinker air drills. Izv. vys. ucheb. zav.; gor. zhur. no.9:10/.-105
(MIRA 15:10)

1. Sverdlovskiy gornyy institut imeni V. V. Vakhrusheva. Rekomendovana kafedroy gornykh mashin i rudnichnogo transporta.

(Boring)

LEGEZA, V.D., kand.tekhn.nauk

Comparative evaluation of air-percussion drilling in open pits.

Izv. vys. uch. zav.; gor. zhur. 5 no.6:85-88 '62. (MIRA 15:9)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva.

Rekomendovana kafedroy gornykh mashin i rudnichnogo transporta.

(Boring machinery—Pneumatic driving)

YEFREMOV, I.F., kand. tekhn. nauk, dots.; IEGEZA, V.D., kand. tekhn. nauk, otv. red.

[Boring machinery; manual for laboratory work in the course "Mining machinery" for students of the Sverdlovsk Mining Institute] Buril'nye mashiny; uchebnoe posobie k labora ornym zaniatiiam po'mrsu "Gornye mashiny" dlia studentov Sverdlovskogo gornogo instituta. Sverdlovsk, Izd. Sverdlovskogo gornogo in-ta. Pt.l. [Percussion boring machinery] Fnevmaticheskie udarnye buril'nye mashiny. 1964. 58 p. (MIRA 17:9)

LEGFZA, V.D., dotsent; YEFRUMOV, 1.F., dotsent

Comparative evaluation of boring machines with sinker compressed air drills. Izv. vys. ucheb. zav.;gor. zhur. 7 no.3:
102-105 *64 (MRA 17:8)

1. Swordlovskiy gornyy institut imemi Vakhrusheva. Rekomendovana kafedroy gornykh mashin i rudnichnogo transporta.

YEFREMOV, I.F., dotsent; IEGEZA, V.D., dotsent

Drilling underground blast holes using the EMA-P machine tool with an air sinker. Izv.vys.ucheb.zav.;gor.zhur. 7 no.7:114-116 '64.

(MRA 17:10)

1. Sverdlovskdy gornyy institut imeni Vakhrusheva. Rekomendovana kafedroy gornykh mashin i rudnichnogo transporta.

LEGEZA, V.D., dotsent; YEFREMOV, I.F., dotsent

Roller bit drilling of holes at the "Goroblagodat'" Mining Administration strip mine. Izv. vys. ucheb. zav.; gor. zhur. (MIRA 18:3) 7 no.11:94-96 64.

1. Sverdlovskiy gornyy institut imeni Vakhrusheva. Rekomendovana kafedroy gornykh mashin.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R0009291200

I' W,

The AA, V. C.: "The operational treatment of extensive and cold symble-pharens in the presence of the eyeball." Oderna State Action inco of Candidate in Me ical Sciences). (Dissertation for the Degree

Source: Knizhneya letonis' No. 25 1956 Moscow .

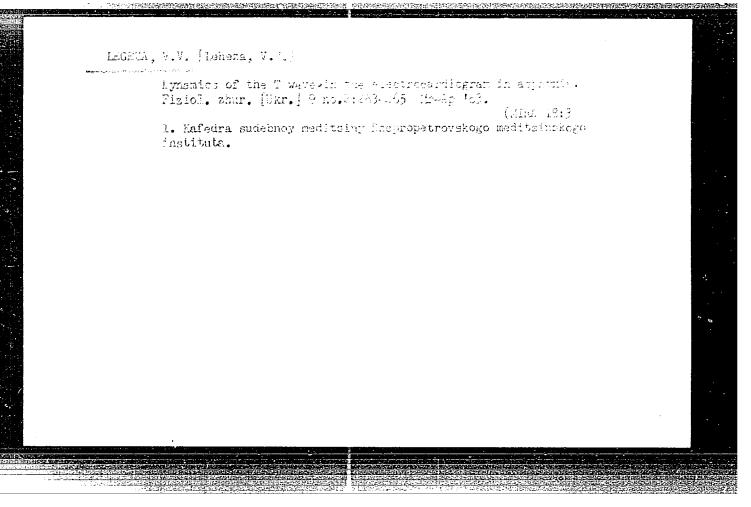
GUBLER, Ye.V., doktor med. nauk; POLONSKIY, Yu.Z.; IVASHKIN, V.T.; LEGEZA, V.I.

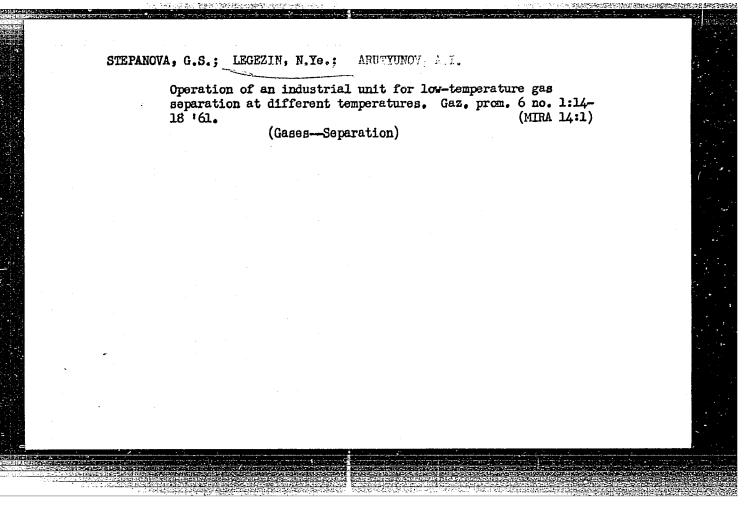
Statistical analysis of the morphological state of the blood in healthy persons and its importance for the diagnosis of various diseases. Probl. gemat. i perel. kroví 9 no.7:26-32 Jl '64.

(MIHA 18:3)

1. Voyenno-meditsinskaya ordena Lenina akademiya imeni Kirova i Leningradskiy universitet imeni Zhdanova.

LEGIAL, V.V., Cond Med Sci — (died) "Dynamics of pairwent and entinguishing of cordine notivity in mechanical suphysic." Dnapropetrovsk, 1959. 13 pp (Micv Order of Caber And Braner Med Fact in Acad A.A. Bogomolets). 200 copies. (Light-of suther's corbs at end of text (12 titles) (ML, 38-59, 120)





STEPANOVA, G.S.; LEGEZIN, N.Ye.; ARUTYUNOV, A.I.

Using an industrial installation for low-temperature separation of gas in the Leningrad field. Trudy AMIGAZ no.17:125-134 '62.

(MTRA 15:12)

(Krasnodar territory-Condensate oil wells-Equipment and supplies)

(Krasnodar perritory-Gas, Natural-Separation)

NEGREYEV, V.F.; ZAREMBO, K.S.; KOFANOV, K.P.; MAMEDOV. I.A.; LEGEZIN,.N.Ye.

Corrosion of the equipment used in gas condensate fields. Gaz.
prom. 8 no.1:14-17 '63

(MIRA 17:7)

LEGEZO, Lo.

PHASE I BOOK EXPLOITATION 474

- Kartsev, M.A., Aleksandridi, T.M., Knyazev, V.D., Tanetov, G.I., Legezo, L.S., Lavrenyuk, Yu.A., Shchurov, A.I., Brusentsov, N.P., Kuznetzova, V.P.
- Bystrodeystvuyushchaya vychislitel'naya mashina M-2 (High-speed Computer M-2) Moscow, Gostekhizdat, 1957. 228 p. 10,000 copies printed.
- Ed. (title page): Bruk, Isaak Semenovich, Corresponding Member, USSR Academy of Sciences; Ed. (inside book): Bezborodov, Yu. M.; Tech. Ed.: Gavrilov, S.S.
- PURPOSE: The book is written for engineers and students of vuzes, specializing in computer techniques, and for specialists interested in computer applications.
- COVERAGE: The book describes the M-2,a small-dimensioned, universal, high-speed digital computer developed by the Laboratory of Control Machines and Systems of the Academy of Sciences, USSR. A detailed description is given of the basic computer units: the arithmetic Card 1/13

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unit, internal memory devices, control devices and output devices. This description is supplemented with an exposition of the guiding principles of computer design, the binary system, coding and programming, and the design of basic components of the system. This makes the book accessible to readers who have no special training in electronic computers. The basic characteristics of the computer are as follows: the calculation system is binary; the code presentation is with a floating and fixed binary point; the number of binary digits is 34; the computation accuracy, with a floating binary point, is about eight decimal bits, and with a fixed binary point, about ten decimal bits (computations with doubled accuracy are also possible); the range of numbers in operations with a floating binary point is from 231 to 2-32; the coding system is a three-address code; operations performed are: addition, subtraction, multiplication, division, congruence with modulus, algebraic congruence, logical (signed) multiplication, sign inversion, transfer of numbers, and auxiliary operations (30 in all); the average speed of operation is

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